

**Woodward-Clyde****Memorandum**

US EPA RECORDS CENTER REGION 5



470767

To: Jon Peterson - EPA  
Kim Sakowski - MDEQ

From: Bob Gibson *RG*

Office: Minneapolis

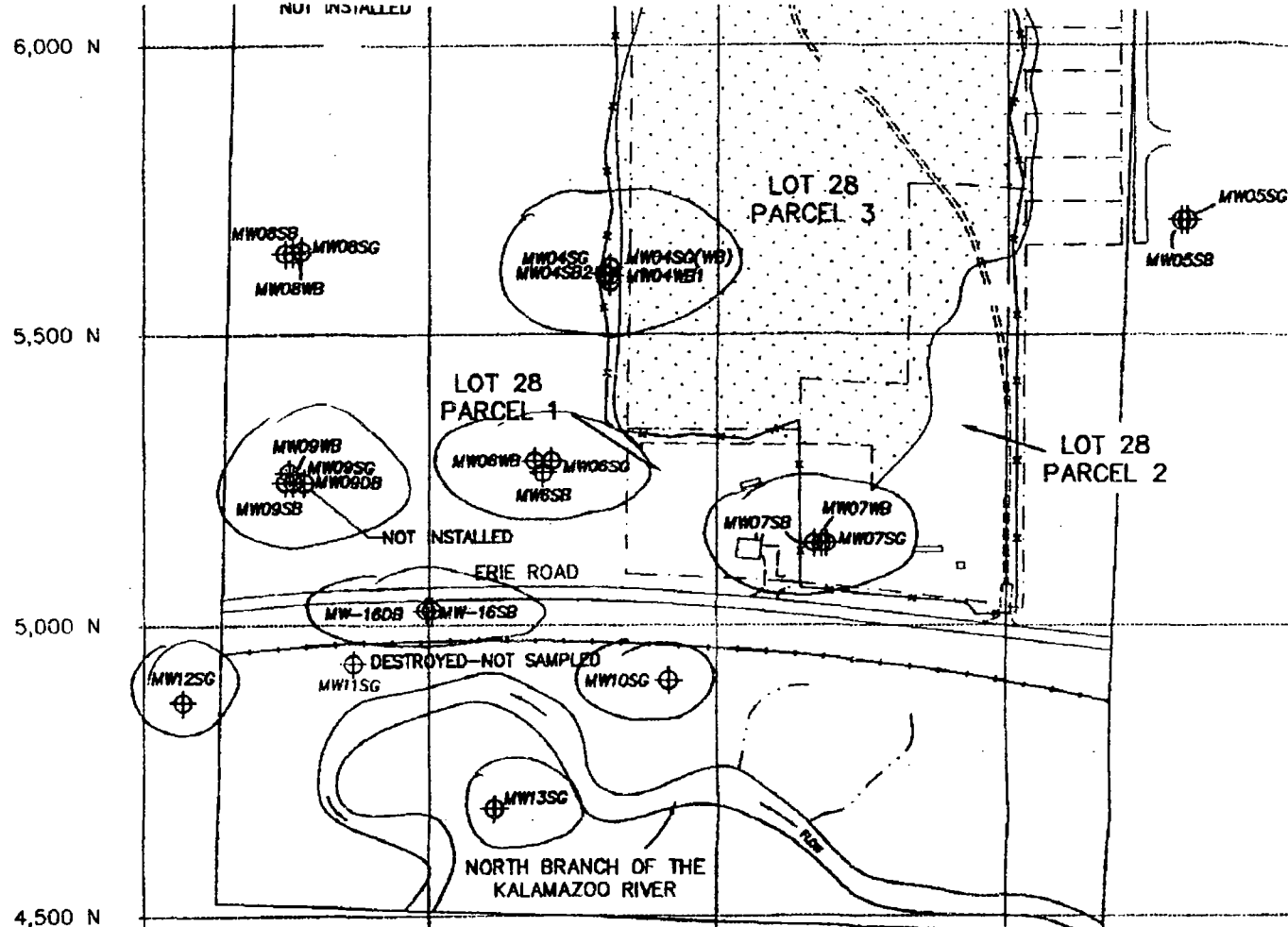
Date: July 7, 1997

Subject: GSI Issue Clarification  
Albion-Sheridan Landfill

Per our phone call this morning, I have prepared a summary of groundwater quality findings from the Pre-Design Studies Report (Woodward-Clyde, November 1996) to assist in our conference call to discuss GSI issues.

- No VOCs or SVOCs were detected in any of the site monitoring wells in excess of GSI values.
- The GSI Value was exceeded in one monitoring well for arsenic (50 ug/l) and cadmium (0.64 ug/l).
- The arsenic exceedance occurred at MW06SB (130 ug/l). Monitoring wells MW16DB, MW16SB and MW10SG are downgradient of MW06SB and closer to the river and did not exceed the GSI value. Also, MW13SG, located on the south side of the river did not detect any arsenic.
- Cadmium was measured above the GSI value at MW06SB (1 ug/l). None of the monitoring wells downgradient of MW06SB and closer to the river detected any cadmium.
- A GSI value is not available for iron. However, iron exceeded the Michigan aesthetic drinking water standard (300 ug/l) in wells two wells near the river, MW16SB (1,320 ug/l) and MW16D (610 ug/l). The iron standard was not exceeded other wells close to the river (MW10SG, MW12SG). MW13SG located south of the river did not exceed the iron standard. Iron is present above the secondary standard in a total of 16 wells, both upgradient and downgradient of the landfill.
- A GSI value is not available for Manganese, however the Michigan health based drinking water value of 180 ug/l was exceeded in MW16SB (202 ug/l) near the river. Manganese was also exceeded south of the river in MW13SG (465 ug/l). However, similar to iron, manganese was found above the standards in a total of 10 wells, both upgradient and downgradient of the landfill.

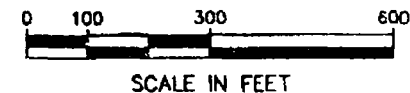
RGG:rgg



### LEGEND

- PROPERTY BOUNDARY
- APPROXIMATE LANDFILL BOUNDARY  
(DASHED PORTIONS INDICATE THE SURVEY GRID BOUNDARY)
- UNPAVED ROAD
- INTERMITTENT STREAM
- FENCE LINE
- RAILROAD TRACK
- ⊕ MONITORING WELL LOCATION

*Circled wells were analytical results were reviewed for the mixing zone determination assessment*



ALBION-SHERIDAN TOWNSHIP LANDFILL  
ALBION, MICHIGAN



**Woodward-Clyde Consultants**

ENGINEERS, GEOLOGISTS, AND ENVIRONMENTAL SCIENTISTS

PRE-DESIGN GROUNDWATER  
MONITORING WELL  
LOCATION MAP

DRN BY: SWH

DATE: MAR. 1995

PROJECT NO.

6E07013

FIG. A

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